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**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/469,567 12/22/99 PACE

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EXAMINER

TM02/0927

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ART UNIT	PAPER NUMBER
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2171
DATE MAILED:

09/27/01

[Handwritten number 4]

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

[Handwritten signature]

Office Action Summary

Application No.

09/469,567

Applicant(s)

Pace et al

Examiner

Uyen Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 15, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15, and 17-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, and 17-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Answer to Amendment

1. Applicant's amendments to the specification, the abstract and claim 23 are acknowledged. Consequently, objection to the drawings, the abstract and claims 23-26 are withdrawn.
2. Applicant's arguments regarding the claims as amended are moot in view of the new grounds of rejection presented in this Office Action.
3. Applicant provides a copy of the marked up amended claims and a separate set of all pending claims but the two versions do not seem to match. For example, applicant does not seem to make claim 19 dependent upon claim 17 because the marked up version of claim 19 does not underline "17". The original claim 19 was dependent upon claim 18. Does applicant intend to make claim 19 depending on claim 17 now? The same problem appears on claims 11, 12, 13, 14, 15, 17, 20, 21, 24, 25, 26, 29, 30, 31. Furthermore, claim 22 was originally depending on claim 18, thus does not seem to need any amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 23-27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention because the claimed checksum is not discussed in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-15, 17 are is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because:

- claim 1, line 5 "the file content" lacks antecedent basis. Note "a file content" is not same as "a file content classification system" claimed at line 1
- claim 17 is depending on a cancelled claim
- claim 10, lines 5-6 "the forwarded identifier" lacks antecedent basis.
- claim 10, lines 5-6 "a characteristic of other identifiers" are not understood
- claim 10, two last lines "an indication of the chrematistic of the data file" is not understood, furthermore, "the data file" lacks antecedent basis. Does applicant mean – the data files—
- claim 11, "said step of generating" lacks antecedent basis.

The art rejection of claims 10-15, 17, 23-27 is applied as best understood in light of the rejection under 35 U.S.C. 112, second paragraph discussed above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1, 10, 11, 13, 28-30 are rejected under 35 U.S.C. 102(a), (e) as being anticipated by Paul (US 5,999,932).

Regarding claim 1, Paul discloses a file content classification system (see the abstract). The claimed plurality of digital content ID generators provided on a plurality of devices is met by the means for generating inclusion lists for a plurality of email users in the system of Paul (see Figures 1-3). The claimed ID appearance database merely receives the digital content IDs from the content ID generators, thus is clearly present for the system of Paul to store the inclusion list. The claimed characteristic comparison routine identifying a file content as having a characteristic based on the appearance of the digital content ID in the appearance database is met when Paul shows that the system compares selected data with inclusion list data (see Figure 4).

Regarding claim 10, Paul discloses a method for identifying characteristics of data files (see the abstract). The claimed receiving digital content identifiers for the data files from a plurality of source systems all coupled to a network is shown in Figures 1-3. The claimed determining whether the content identifiers match a characteristic is met by

the fact that email messages are filtered through the email filter 104. The claimed outputting an indication of the characteristic of the data files to a source system responsive to a request is met when incoming emails are displayed to users (see Figure 4).

Regarding claims 11, 13, the claimed hashing at least a portion of the data file and hashing multiple portions of the data file merely reads on the fact that the method of Paul compares portions of a message and matches them to the filtering information (see Figure 6).

Regarding claim 28, Paul discloses a method for providing a service on the Internet (see Figures 3, 3A). The claimed collecting data from a plurality of systems having a client agent generating digital content identifiers for each of a plurality of files on the Internet to a server having a database is met by the fact that email messages are identified, processed and stored (see Figures 1-3). The claimed characterizing files based on content identifiers received relative to other digital content identifiers collected in the database is met by the fact that the method of Paul categorizes email messages (see Figures 4-6). The claimed transmitting a content identifier to the client agent indicating the presence or absence of a characteristic in the file is met when the method of Paul displays messages based on a characteristic such as "TO", "FROM", "SUBJECT" (see column 5, lines 39-50).

Regarding claim 29, clearly the collecting includes collecting a digital identifier for a data file since the method includes collecting email messages from specific senders, for specific recipients and based on specific subject (see column 5, lines 39-50).

Regarding claim 30, Paul shows that said file content is an email (see Figures 1-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 18-21, 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul (US 5,999,932).

Regarding claim 6, official notice is taken that the communication network comprises public and private networks. Therefore, it would have been obvious to one of ordinary skill in the art to include coupling a plurality of digital ID generators to the database via a combination of public and network while implementing the system taught by Paul in order to integrate all existing systems.

Regarding claim 18, Paul discloses a method of filtering an email message (see the abstract). The claimed receiving a digital content identifier unique to the message content from at least two of a plurality of devices is met by the fact that the system of Paul receives inclusion list data. Clearly, each list data is unique to a message content from a plurality of devices. The claimed comparing the digital content identifier to a characteristic database of digital identifiers received from said plurality of devices to determine whether the message has a characteristic is met when the method of Paul compares selected field data with inclusion list data (see Figure 4). The claimed

obvious to one of ordinary skill in the art to use such a technique while implementing the system of Paul in order to benefit from a simple technique for validating data.

Regarding claim 24, the claimed plurality of first systems each including a respective file ID generator coupled to the database on the second system merely reads on the fact that email messages are sent and received from a plurality of systems.

Regarding claim 25, although Paul does not explicitly show that the first system is coupled to the second system via a combination of public and private networks, it would have been obvious to one of ordinary skill in the art to do so in order to communicate with existing networks available on the Internet.

Regarding claim 26, Paul discloses a web server interface when Paul shows that Internet email protocols are used (see column 6, lines 55-59, column 7, line 65- column 8, line 4). Clearly the database system is isolated from the Internet by the web server system (see Figures 1, 1A, 3, 3A).

Regarding claim 27, Paul discloses a file content classification system for a first and second computer coupled by a network (see Figures 3, 3A). The claimed client agent file content identifier generator on the first computer is met by the inclusion list manager 102 and related components (see Figures 1, 1A, 2). The claimed server comparison agent and data structure on a second computer receiving identifiers from the client agent and providing replies to the client agent is met by server 301 and related components (see Figure 3, 3A). The claimed wherein the client agent processes the file based on replies from the server comparison agent merely reads on the fact that a user interface 108 receives inputs from the user and displays email information to the

responding to a query from at least one of said plurality of devices of the existence or absence of said characteristic of the message based on said comparing merely reads on the fact that a user requests email messages using a criteria such as date, sender, subject. Since the whole purpose of filtering email messages is to categorize messages to provide upon request, it would have been obvious to one of ordinary skill in the art to include the claimed step while implementing the method of Paul in order to allows users to find messages according to a search criteria.

Regarding claims 19-21, the claimed processing occurs on at least one first system or a plurality of first systems, comparing occurs on a second system and at least one first system and second system are coupled by the Internet merely read on the fact that any message sent from a system has an ID. Clearly the message ID is compared at the second system in the method taught by Paul and both systems are coupled to the Internet (see Figures 1-3).

Regarding claim 23, Paul discloses a file content classification system (see the abstract). The claimed first system having a file to be classified is met by the email server message store 306. The claimed file ID generator on the first system outputting at least one file ID for the file is met by the fact that the system of Paul generates an inclusion list (see Figures 3, 3A). The claimed database on a second system coupled to the ID generator to receive IDs generated by the ID generator is met by element 302. The claimed comparison routine on the second system classifying the ID relative to the database as meeting or not meeting a characteristic is met by the email filter 304. Although Paul does not specifically show the use of a checksum, it would have been

user (see column 3, lines 36-42). Although Paul does not specifically show that the file content identifier comprises a checksum of at least two non-contiguous sections of data in a file, it would have been obvious to one of ordinary skill in the art to do so in order to benefit from a common algorithm for data validation.

8. Claims 2, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul (US 5,999,932), further in view of Duvall et al (US 5,884,033) of record.

Regarding claim 2, although Paul does not specifically show a hashing algorithm, it would have been obvious to one of ordinary skill in the art to include such algorithm while implementing the system of Paul since it is well known in the art as shown by Duvall to hash data for fast mapping and retrieval (see column 7, lines 40-46, column 8, lines 34-36).

Regarding claims 7, 8, it is well known in the art as shown by Duvall to use web intermediate server (see Figure 1). Since the system of Paul is connected to other networks, it would have been obvious to one of ordinary skill in the art to include an intermediate web server as claimed.

9. Claims 3, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul (US 5,999,932), in view of Duvall et al (US 5,884,033) of record, in view of Butler et al (US 6,094,487) of record.

Regarding claims 3, 12, although Paul and Duvall do not specifically show that the hashing algorithm is MD5, it is well known in the art to use MD5 hashing algorithm

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as shown by Butler (see column 4, lines 31-38). Since MD5 is commercially available, it would have been obvious to one of ordinary skill in the art to include MD5 hashing algorithm while implementing the system of Paul in order to benefit from the readily available software on the market.

10. Claims 4, 9, 14, 15, 17, 22, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul (US 5,999,932), in view of Cobb (US 6,199,102) of record.

Regarding claim 4, although Paul does not explicitly show that the ID appearance database tracks the frequency of appearance of a digital ID, it is well known in the art that mass commercial emailing is profitable and most ads can be repeatedly sent to thousands of people as shown by Cobb (see column 1, lines 40-64). Therefore, it would have been obvious to one of ordinary skill in the art to include such a feature while implementing the system taught by Paul in order to detect unwanted messages.

Regarding claim 9, although Paul does not specifically show that the characteristic comprises junk email and is defined by a frequency of appearance of a digital ID, it is well known in the art that senders of unsolicited emails try to reach as many recipients as possible as shown by Cobb (see column 1, lines 40-64). Therefore, it would have been obvious to one of ordinary skill in the art to include junk email as characteristic and defining the characteristic by a frequency of appearance of a digital ID while implementing the system of Paul in order to identify unsolicited junk emails.

Regarding claim 14, although Paul does not specifically show that the data file is a spam email message, Cobb clearly teaches that the method detects spam email (see

the abstract). Since the method taught by Paul filters messages, it would have been obvious to one of ordinary skill in the art to include determining spam email as taught by Cobb in order to alert recipients of spam email messages.

Claim 15 merely reads on the fact that mass commercial emailing is profitable and most ads can be repeatedly sent to thousands of people as shown by Cobb (see column 1, lines 40-64). Therefore, it would have been obvious to one of ordinary skill in the art to include tracking the rate at which a digital ID is generated while implementing the method of Paul in order to detect unwanted junk mail.

Regarding claim 17, Paul discloses a plurality of source systems all coupled via a network (see Figures 3, 3A). The claimed source systems coupled to at least one processing system performing the determining step and the processing step comprising instructing said plurality of source systems to perform an action on the email based on the determining step merely read on the fact that email messages received are processed and displayed according to their status (see Figures 4, 4A, 6).

Claim 22 merely reads on the fact that since mass mailers try to repeatedly send ads to people as shown by Cobb (see column 1, lines 40-64), it would have been obvious to one of ordinary skill in the art to include determining the frequency of a particular ID occurring in a time period, classifying said ID as having a characteristic and comparing digital identifiers to said ID as claimed in order to identify unwanted mailing messages in the method taught by Paul.

Claim 31 merely reads on the fact that since mass mailers try to repeatedly send ads to people as shown by Cobb (see column 1, lines 40-64), it would have been

obvious to one of ordinary skill in the art to include tracking the frequency of the collection of a particular identifier, characterizing the data file based on said frequency, storing the characterization and comparing collected identifiers to the known characterization as claimed in order to identify unwanted mailing messages in the method taught by Paul.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Canale et al (US 5,619,648) teach message filtering techniques.

Ding et al "Centralized content-based web filtering and blocking: how far can it go?", IEEE 1999, pages 115-119.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen T Le whose telephone number is 703-305-4134. The examiner can normally be reached on M-T 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-9707. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

UL
September 19, 2001


THOMAS BLACK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100